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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------------|
| 10/550,238 | 09/23/2005 | Chang-Yeong Kim | AB-1523 US | 2199 |
| 32605 7590 07/17/2007 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110 | | | EXAMINER HEYMAN, JOHN S | |
| | | | ART UNIT 2871 | PAPER NUMBER |
| | | | MAIL DATE 07/17/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|----------------------------|--|
| Office Action Summary | Application No. 10/550,238 | Applicant(s) KIM ET AL. | |
| | Examiner John Heyman | Art Unit 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>09/23/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 09/23/2005 was filed after the mailing date of the instant application on 09/23/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Specification

Minor errors occur in the specification on page 4, line 1 of paragraph 28 wherein it appears that "Fig. 2" was meant for "Fig. 3". Also, on page 5 line 5 of paragraph 32, was "200" meant for "100"? In this regard, was "300" meant for "100" shown in Fig. 1 herein? See line 1 of paragraph 27 on page 4. If so, correction is required.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-14 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Song et al (Song – US 6,989,876). Comparing these claims with Figs. 11-13 of Song either anticipates or renders obvious the various “dots” recited in combination with their surrounding circuitry. Thus, the first and second dots in which the first dot includes three primary colors, the second dot includes two primary colors and a white pixel is anticipated by Fig. 11 which shows a first dot, RBG and a second dot, RWG. A plurality of gate lines are disclosed in col. 9 line 58, and a plurality of data lines are disclosed in col. 10 line 9 to meet this limitation in the claims. See Fig. 11 to anticipate the last clause of Claim 1 and Claims 2 and 3. The particular sequence recited in Claims 4, 5, 7-9 and 11- 13; and the “rendered” pixels of Claims 6, 10 and 14 are either inherently met by Song’s disclosure or are an obvious variation of the Song disclosure under 35 USC 103 well within the skill of the worker in the art. For example, see col. 9 line 17 in which Song proposes “alternative” locations for their pixels, and col. 9 line 33 wherein “rendering” dots “may include” different colored pixels.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Saitou.

Fig. 1 of Saitou shows alternately arranged color filters, RBGW in lines and columns that are disclosed as mixed to improve the quality of an image. The alternately arranged lines and columns of Saitou's dots (Fig. 1a and 1b) render obvious the sequence and rendering limitations of these claims. Even though three color pixels are recited for each dot in the claims while Saitou shows four, the inclusive term "including" as recited for the number of pixels making up the dots allows for more than just three. So, for example, looking at Fig. 1a, the first dot comprising three primary colors RGB recited in Claims 1 and 2 are rendered obvious by the RGB pixels within the upper dash-lined box (ignoring the white pixel), while the second dot comprising two primary colors, RG, and a white pixel recited in Claims 1 and 3 are rendered obvious by the lower dash-lined box which shows RG and white pixels (ignoring the B pixel). A similar rationale is employed for the remaining claims.

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This rejection may be overcome by changing the inclusive term "including" with the exclusive term, "consisting", so that each dot is restricted to just three pixels and not four.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of these references show various color filters employing four color pixels in various combinations. These references should be carefully reviewed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Heyman whose telephone number is 571 272-5730. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571- 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSH


ANDREW SCHECHTER
PRIMARY EXAMINER